DOCUMENT RESUME

ED 412 340 CE 074 788

AUTHOR	Bloom, Michael; Burrows, Marie; Lafleur, Brenda; Squires, Robert
TITLE	The Economic Benefits of Improving Literacy Skills in the Workplace.
INSTITUTION	Conference Board of Canada, Ottawa (Ontario).
PUB DATE	1997-00-00
NOTE	23p.
AVAILABLE FROM	Publications Information Center, Conference Board of Canada, 255 Smyth Road, Ottawa, Ontario K1H 8M7, Canada; phone: 613-526-3280; fax: 613-526-5248; e-mail: pubsales@conferenceboard.ca
PUB TYPE	Reports - Research (143)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Adults; *Cost Effectiveness; *Economic Development; *Educational Needs; *Employee Attitudes; Employees; *Employer Attitudes; Employment Practices; Foreign Countries; On the Job Training; *Workplace Literacy
IDENTIFIERS	*Canada

ABSTRACT

A Canadian study explored the economic benefits of improving literacy skills in the workplace from the perspective of both employers and employees. The Conference Board identified and measured these benefits by conducting a survey of 40 employers, as well as by analyzing data gathered in the International Adult Literacy Survey. The study found that enhancing literacy skills in the workplace enables employers to improve the performance of their businesses in a wide variety of ways that strengthen the bottom line. Literacy skills enhancement also enables employees to attain greater success in the workplace. Emphasis has recently shifted from increasing productivity by investing in machines and equipment to investing in employee training, since investments in equipment have not resulted in as much productivity growth as needed to keep Canadians working and prospering. More highly skilled, literate people are the key to increasing productivity. At the same time, employees need to continuously acquire new skills to succeed in the modern workplace. Workers who acquire more skills have higher incomes, lower unemployment, more full-time work, and higher probability of receiving training. (KC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 412 340

The Conference Board of Canada

THE ECONOMIC BENEFITS OF IMPROVING LITERACY SKILLS IN THE WORKPLACE

UNDERSTANDING THE STRATEGIC ENVIRONMENT

- Economic Analysis
- Business and Society
- Policy Analysis

ORGANIZATIONAL RESPONSE

- Improving Organizational Effectiveness
- Managing Human Resources
- Managing Innovation and Technology

BY MICHAEL BLOOM, MARIE BURROWS, BRENDA LAFLEUR AND ROBERT SQUIRES

WHAT'S INSIDE

There are clear economic benefits in improving workplace literacy, but the message has not yet reached many Canadian workplaces.

Benefits of literacy training cited by employers include the improved learning facility of the employees, their ability to work together as a team, and improved labour–management relations.

Employees with higher literacy skills earn more income, are less likely to be unemployed, experience shorter periods of unemployment, are more likely to find full-time work, and are more likely to receive further training.

A male with higher literacy skills makes an extra $585,000 over his lifetime. For females, the amount is $683,000.

206-97 REPORT

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

P. Fletcher

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

CE 074 788

BEST COPY AVAILABLE

About the Conference Board

The Conference Board of Canada is an independent, not-for-profit research organization with affiliates in the United States and Europe. Our mission is to help our members anticipate and respond to the increasingly changing global economy. We do this through the development and exchange of knowledge about organizational strategies and practices, emerging economic and social trends and key public policy issues. Since 1954, the Board has been committed to researching innovative practices, designing new strategies and providing our members with the most up-to-date information, analysis and expertise to help them excel in Canada and around the world.

A Conference Board of Canada report from the Custom Economic Services Group and the National Business and Education Centre

About the Custom Economic Services Group and the National Business and Education Centre

The Custom Economic Services Group undertakes customized financed research. Services include analysis of the implications of changes in public policy, economic impact analysis, and custom economic forecasting.

The National Business and Education Centre conducts research to help business and education leaders work collaboratively to promote the development of a learning society that will prepare Canadians for a changing world.

The authors wish to thank Stephane Arabackyj and Joeanne Mahoney for their research contributions. Technical guidance on the International Adult Literacy Survey from Jean Pignal of Statistics Canada is also gratefully acknowledged. Special thanks go to the many individuals in public and private organizations active in workplace literacy in the provinces and territories who assisted us in identifying survey participants.

Preface

Solving the problem of inadequate literacy skills requires concerted action from business, educators, communities, individuals and government. This study is designed to help these stakeholders make decisions about investing in literacy, and to raise awareness of the importance of the issue by contributing to the debate and discussion on literacy.

The Conference Board is grateful for the sponsorship of this research by the National Literacy Secretariat, Human Resources Development Canada, and the generous participation of National Literacy Secretariat employees. Special thanks are extended to the 40 companies that participated in the survey and shared their experiences about workplace literacy.

The design and method of research, as well as the content and distribution of this report, were determined solely by The Conference Board of Canada.

James R. Nininger
President and Chief Executive Officer
The Conference Board of Canada
August 1997

©1997 **The Conference Board of Canada***
206-97 Report
Printed in Canada
All rights reserved
ISSN 0827-1070
ISBN 0-88763-386-2

*Incorporated as AERIC Inc.

The Conference Board of Canada

206-97
EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

The Economic Benefits of Improving Literacy Skills in the Workplace

BY MICHAEL BLOOM, MARIE BURROWS, BRENDA LAFLEUR AND ROBERT SQUIRES

August 1997

Enhancing literacy levels in the workplace improves bottom-line performance for Canada's employers and gives employees a better chance for success in their careers. These findings will interest employers and individuals who want to understand the link between enhancing literacy skills in the workplace and economic success, and who are interested in the performance implications for their own organizations.

In the past, choices about investing in literacy were often made without having the right information to make the most informed decisions. Today, however, there is growing recognition that literacy is such a critical factor in corporate and personal success that it demands greater consideration and understanding. There is a growing awareness that literacy skills are not "fixed" forever—individuals can lose skills after they leave school, through lack of use, or they can gain skills, through practice and additional training. Now, and for the foreseeable future, literacy will be an important business issue.

Employers offer literacy skills training to their employees because enhanced reading, writing and numeracy skills ultimately contribute to a stronger bottom line through such benefits as time savings, lower costs, and improvements in the quality of work. The study found that these direct benefits are just the tip of the iceberg. Other benefits include unleashing the potential of individual employees, better team performance, cementing stronger labour–management relations, and moving the entire organization toward achievement of corporate goals. All of these benefits from literacy skills training make a positive contribution to the company's bottom-line performance.

Employees also profit by improving their literacy skills. Individuals with higher literacy skills earn more income, are less likely to be unemployed, experience shorter periods of unemployment, are more likely to find full-time rather than part-time work, and are more likely to receive further training. The dollar value attached to these factors is significant—the average annual income for high-literacy individuals is approximately double that of individuals with low literacy skills.

This study provides concrete evidence that literacy matters to both employers and employees. Yet, even though the evidence is powerful, the message has not reached many Canadian workplaces. What can Canadians do to address the situation? First, we can raise awareness of the importance and value of improving literacy in the workplace. Employers and employees already involved in literacy programs can help to build this support by spreading the message. Governments can help by disseminating research findings about the economic importance of workplace literacy to employers and employees across Canada. Second, we can establish more literacy training programs. Employers can play a leading role in this initiative. Third, we can enhance the literacy component of existing jobs and create more literacy-rich jobs. Fourth, we can develop additional public policies to strengthen literacy skills.

All of these initiatives can be seen as part of a larger effort to encourage employers and employees to work together to create a culture of learning in the workplace, which in the long run is essential for Canadian businesses to remain competitive in world markets. Ultimately, investing in literacy skills development as an integral part of overall training and development in the workplace will benefit us all.

The Economic Benefits of Improving Literacy Skills in the Workplace

CONTENTS

A Shifting Emphasis
page 1
Background
page 2
Benefits for Employers
page 3
Benefits for Employees
page 10
Call to Action
page 15
Appendix: Survey Participants
page 17

This report explores the impact of literacy in the workplace on employers and employees. It seeks to demonstrate the value of making literacy enhancement and basic skills development an integral part of training and development in the workplace. Its findings will interest employers and individuals who want to understand the link between enhancing literacy skills in the workplace and economic success, and who are interested in the performance implications for their own organizations.

The economic significance of literacy is a topic of increasing interest and concern in the 1990s. More and more Canadians are asking questions about the extent to which literacy skills affect the country's prosperity, as well as their own success and economic well-being. At the same time, employers are beginning to pay more attention to the potential impact of literacy on their business success. Their interest is not surprising. Recent research studies identify a nation's human resources as the key to future competitiveness, and skills development as the key to improving human resources capability.

In the past, choices about investing in literacy were often made without having the right information to make the most informed decisions. Today, however, there is growing recognition that literacy is such a critical factor in corporate and personal success that it demands greater consideration and understanding. The findings in this report show that enhancing literacy skills in the workplace enables employers to improve the performance of their businesses in a wide variety of ways that strengthen the bottom line, and enables employees to attain greater success in the workplace.

A Shifting Emphasis

A 1996 publication of The Conference Board of Canada, *Performance and Potential*, emphasizes the economic importance of human resources as Canada goes through a period of change, driven by global developments in technology, communications, trade liberalization and greatly increased international competition for our products and services from emerging and industrialized countries.[1] Traditionally, business and government focused on boosting economic growth by increasing consumer spending, creating a climate that encourages business investment and improving Canada's export position. Although human resources have always been considered important to economic performance, they usually took a back seat to these demand issues.

Today, the emphasis is shifting. One reason for this shift is what economists have termed "the productivity paradox." Despite record investment in machinery and equipment, particularly high-tech equipment, Canada's position in relation to our major competitors has fallen over the last decade. Real incomes have grown more slowly, the declining growth rates of gross domestic product per capita reflect poor productivity performance, and unemployment rates are high, particularly for youth.

Evidence is beginning to emerge that places part of the responsibility on the shoulders of inadequate employee skills and training. No matter how much capital investment occurs, without adequate investment in workforce training and education employers will remain unable to harvest the full potential of that investment. The country's economic well-being

1 *Performance and Potential: Assessing Canada's Social and Economic Performance* (Ottawa: The Conference Board of Canada, 1996).

BEST COPY AVAILABLE

More highly skilled, literate people are the key to increasing productivity.

depends on its capacity to make the most effective use of people and to maintain the skills of its workforce. More highly skilled, literate people are the key to increasing productivity.

At the same time, the growing complexity of jobs in Canadian workplaces increases the demands being placed on workers. For many, the literacy skills that earlier enabled them to do their jobs effectively are not sufficient for them to perform adequately today. Employees need to continuously acquire new skills and qualifications in a process of lifelong learning to succeed in the modern workplace.

At the same time, employees need to continuously acquire new skills to succeed in the modern workplace.

Background

The problem of low literacy levels began to receive heightened attention in Canada during the 1980s, notably with the release of the Southam literacy survey findings in 1987.[2] Literacy has become better understood in the 1990s, due in large part to the International Adult Literacy Survey (IALS), conducted in 1994 and released in 1996 (see Exhibit 1). With increased attention came studies, articles, conferences and workshops on various aspects of the "literacy problem." One area singled out for attention was literacy skills in the workplace—especially the extent of literacy difficulties experienced by workers and the repercussions for both their employers and the workers themselves.

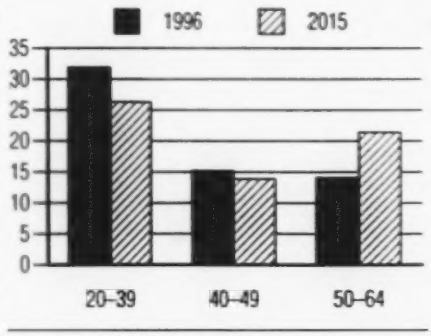
Literacy skills are not "fixed" forever.

Literacy and lifelong learning are especially important at a time when employers are facing a labour market that has fewer young people than in the past. This means that they need to rely more on existing workers—workers who must be able to adapt to ever-changing skill requirements. As Chart 1 shows, the share of the Canadian population aged 20 to 39 years is forecast to decrease from 32 per cent in 1996 to 26 per cent in 2015. Conversely, the population aged 50 to 64 will increase from 14 per cent to 21 per cent of the total population over the same period. Since there will be relatively fewer young workers in the future, employers will need to train and retrain workers already in the labour force.

The Canadian IALS report points out that literacy skills are not "fixed" forever—individuals can lose skills after they leave school, through lack of use, or they can gain skills, through practice and additional training. It makes it clear that literacy can be influenced by what people choose to do after leaving school—and that workplace experiences are a key to continued literacy.[3] Now, and for the foreseeable future, literacy will be an important business issue.

Chart 1

Share of Population by Age Group
(percentage)



Source: The Conference Board of Canada

2 Canadian Business Task Force on Literacy, *Measuring the Costs of Illiteracy*, February 1988.

3 Statistics Canada, Human Resources Development Canada and National Literacy Secretariat, *Reading the Future: A Portrait of Literacy in Canada* (Ottawa, 1996), p. 27.

Exhibit 1

What Is Literacy?

The definition of literacy has changed considerably over the past 20 years. This is significant because the more complex definitions and concepts that have recently been developed facilitate more sophisticated assessments and evaluations of the impact of enhanced literacy skills on economic well-being. They also support the introduction of increasingly sophisticated and effective initiatives to bring about improvements in literacy in the workplace.

Early work in the literacy field defined literacy as a condition that adults either have or do not have. The problems with this approach are that it fails to take into account the multifaceted nature of literacy; it ignores the reality that skills are a moving target because of the changing nature of the skills required to function effectively in the labour market; and it ignores the fact that literacy is about lifelong learning and that literacy skills are maintained and strengthened through regular use.

By comparison, the International Adult Literacy Survey (IALS), a seven-country comparative study of adult literacy released in 1996, incorporates the most sophisticated definition of literacy developed to date. The IALS promotes the definition of literacy as a skill-based proficiency continuum—that is, literacy is a relative rather than an absolute concept. The IALS defines literacy as: "Using printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential."[1]

Because the definition of literacy cannot be narrowed down to a single skill or an infinite set of skills able to address every type of text, the IALS defines three distinct literacy types—prose literacy, document literacy and quantitative literacy—and five levels of proficiency within each type:

Prose Literacy—the knowledge and skills needed to understand and use information from texts including editorials, news stories, poems and fiction.

Document Literacy—the knowledge and skills required to locate and use information contained in various formats, including job applications, payroll forms, transportation schedules, maps, tables and graphics.

Quantitative Literacy—the knowledge and skills required to apply arithmetic operations, either alone or sequentially, to numbers embedded in printed materials, such as balancing a cheque book, figuring out a tip, completing an order form or determining the amount of interest on a loan from an advertisement.

At Level 1, people have great difficulty with reading. They have few basic skills available to them to interpret and work with text. Most are aware that they have problems; 22 per cent of Canadians are at this level.

At Level 2, people have limited skills—they can read, but not very well. Canadians at this level can deal only with material that is simple and clearly laid out. They often do not recognize their limitations; 26 per cent of Canadians are at this level.

At Level 3, people read well, but might have difficulties with more complex tasks. Many countries consider Level 3 to be the minimum desired skill level; 32 per cent of Canadians are at this level.

Levels 4 and 5 are the highest levels on the scale. The two levels were combined because there were too few Canadians at Level 5 to be statistically differentiated from Level 4. Here, people have very high levels of literacy. They have a wide range of reading skills and can deal easily with complex materials; only 20 per cent of Canadians are at these levels.

The Conference Board employed the IALS definition as the basis for research and analysis for this study. As the most sophisticated definition currently available, it provides the greatest scope and analytical depth when undertaking assessments of the economic impact of improved literacy skills.

1 *Literacy, Economy and Society* (Paris and Ottawa: Organisation for Economic Co-operation and Development and Minister of Industry, Canada, 1995), p. 14

This study explores the economic benefits of improving literacy skills in the workplace from the perspective of both employers and employees. The Conference Board recently identified and measured these benefits by conducting a survey of 40 employers (see Exhibit 2), as well as by analysing the data gathered in the International Adult Literacy Survey. A list of the organizations that participated in the survey is contained in the Appendix.

Benefits for Employers

Employers offer literacy skills training to their employees because enhanced reading, writing and numeracy skills ultimately contribute to a stronger bottom

Exhibit 2

About the Survey

The Conference Board of Canada conducted a survey of employers across Canada that are currently offering a workplace literacy program or have offered a program within the past three years. Many of the 40 organizations that participated were identified with the assistance of provincial and territorial government departments of education, training and labour and with the help of labour organizations, deliverers of workplace literacy programs and education consultants. Others were identified from journal articles describing the experiences of individual firms with workplace literacy programs and from earlier Conference Board studies.

The participating employers were asked about two aspects of the literacy skills training they offered. First, they were asked about the literacy skills outcomes that they sought and observed in their employees (i.e., enhanced document comprehension, manipulation and application). All but two of the employers completed this section of the questionnaire. Second, they were asked about the benefits they had observed from enhancing their employees' literacy skills. Most employers said that measuring the impact of enhanced literacy skills on the performance of individual employees and on the organization was extremely difficult. In fact, half of the 40 employers did not complete this section of the survey. The remaining 20 employers who had observed benefits took part in a follow-up telephone interview.

line through time savings, lower costs and improvements in the quality of work. The Conference Board survey found that these direct benefits are just the tip of the iceberg. Other benefits include unleashing the potential of individual employees, cementing stronger labour–management relations, and moving the entire organization toward achievement of corporate goals. All of these benefits from literacy skills training contribute to the company's bottom-line performance.

The survey findings confirm that enhanced literacy skills affect the performance of individual employees in a variety of ways. ▶

Tracking the effects of employee training on an organization's operations is very difficult and, as many respondents noted, prohibitively expensive. For these reasons, few companies collect quantitative data on the benefits arising from the training that they deliver to their employees. This means that it is not currently possible to derive an overall number that conveys the dollar value to Canadian employers of improving their employees' literacy skills. Nevertheless, many companies were able to provide information on the qualitative benefits of literacy training, and discuss the impact on their organizations.

The Conference Board questionnaire cited a list of 15 potential benefits arising from enhanced literacy skills, as suggested by human capital theory and by previous studies. Employers were asked which of these benefits they had observed. Table 1 shows the benefits in descending order according to the number of times they were cited.

The survey findings confirm that enhanced literacy skills affect the performance of individual employees in a variety of ways. Concrete benefits to the organization include reducing the amount of time required to complete tasks and process information, reducing the number of errors in completed jobs and increasing product quality. Therefore, enhancing the literacy skills of employees represents an important strategy to meet corporate goals such as reducing costs and improving quality, both of which are crucial to a firm's overall competitiveness.

In today's economy, firms cannot stand still once they become competitive, because what is successful today may become outdated tomorrow. One way employers are coping with rapid change is by offering employees opportunities to upgrade and add new skills through training, as part of a broader effort to

Table 1

Ranking of Benefits to Employers

Benefit	Number of citings (n=40)
Increased ability to handle training on the job	12
Better team performance	11
Improved labour–management relations	10
Increased quality	10
Improved results in job-specific training/quicker training results	9
Reduced time per task	8
Increased output of products and services	8
Reduced error rate	8
Better health and safety record	7
Reduced wastage	6
Increased retention of employees	6
Increased profitability	6
Increased customer retention	6
Reduced absenteeism	5
Success in transferring employees	5

Source: The Conference Board of Canada

establish a learning culture within their organizations.

But the survey findings also indicate that the benefits to employers extend beyond the effects on individual employees. ▶

Enhancing literacy skills offers additional valuable benefits to firms. The most often cited benefit of literacy training is that it increases the ability of employees to handle on-the-job training. Increasingly, employees are expected to be highly literate so that they can reap the most benefit from the job-specific training that employers provide in order to keep up with the changing marketplace. Employees who enhance their literacy skills show improved results in job-specific training and use the new job skills and techniques more quickly. As a result, programs to enhance literacy skills provide firms with a greater return on every dollar spent on job training, and firms reap the gains associated with the new techniques and skills sooner.

At the core of the direct benefits of literacy training is the significant impact that it has on the self-esteem and self-confidence of the participating individuals. Employers noted that workers with weak literacy skills are very conscious of this fact and often try to hide it from their co-workers. The employees recognize that this skill deficit has cut them off from opportunities to advance. Literacy training offers them the skills they want and need the most. Once literacy is enhanced, language takes on more meaning and ideas are better understood. Employees have greater confidence in their ability to communicate, feel more empowered, are more inclined to take ownership of their work, become more effective decision makers, and assume a more engaged and participative role within their organization. It is from this starting point that many of the other benefits arise.

These benefits show how improvements in an individual employee's performance help improve the performance of the organization. But the survey findings indicate that the benefits to employers arising from enhanced literacy skills extend beyond the effects on individual employees. By offering a literacy skills training program, firms gained additional benefits such as better team performance and improved labour–management relations. These results show that the benefits of a literacy training program encompass indirect benefits associated with the establishment and presence of the program itself.

Increased Ability to Handle Training on the Job and Quicker Training Results

Employees who lack confidence in their ability to communicate are often intimidated when new materials are presented to them. This imposes a huge barrier to job-specific training. By strengthening their ability to work with oral and written materials, literacy

A more literate employee delivers better training results sooner, providing more bang for every training buck.

training enables people to grasp new concepts more easily. A more literate employee delivers better training results sooner, providing more bang for every training buck.

Furthermore, as their self-confidence improves with better literacy skills, employees become more willing to accept new duties. These benefits from literacy training are important to any business that needs to upgrade the skills of its workforce in order to keep pace with the changing economic environment. Employers help ensure that their workforce has command of the necessary skills to respond to the competitive challenges by cultivating a strong learning culture in their organization. Establishing literacy training programs helps to achieve this end.

"It has been our experience that when we strengthen the literacy skills of employees, they become more comfortable working in areas that involve writing skills and, as a consequence, are more willing to accept new duties."

Garold Danyluk, Operations Superintendent, Husky Oil Ltd., Lloydminster, Saskatchewan

Successful teamwork requires understanding and communication: strong literacy skills provide both.

Better Team Performance

Successful teamwork requires understanding and communication: strong literacy skills provide both. Employees with strong literacy skills are able to collect information that enables them to learn about areas of the organization other than their own. This strengthens the employees' broad understanding of the contribution their actions make to the organization and how their choices affect their co-workers.

"Stronger reading comprehension skills have given employees a better understanding of the entire business, not only their own specific areas."

Dave Nichols, Training Specialist, Imperial Oil Resources Ltd., Redcliff, Alberta

In the context of team performance, literacy skills go beyond reading and writing to take in a continuum that also includes oral communication. A team's overall performance benefits from the contributions of employees who are willing to express ideas and to participate in group discussions. As an added benefit, the sense of collaboration in a learning environment that is encouraged in a literacy training program often survives the classroom to cement the value of work-related team concepts.

"As employees learn to take part in group discussions and problem solving, they realize that thinking belongs to all people."

Gary Pharness, Consultant, Hastings Institute Inc./City of Vancouver, British Columbia

Companies are often surprised at the extent to which literacy training contributes to better labour–management relations.

Improved Labour–Management Relations

Labour and management often point to workplace literacy training as an example of how they can work together. Companies are often surprised at the extent to which literacy training contributes to better labour–management relations. Employees value the courses and view their existence as a signal that management is prepared to invest in them. Ultimately, enhanced literacy skills support the objectives of both

labour and management. Unions view enhanced literacy as a means to promote from within and strengthen the job security of their membership, while management is eager to upgrade skills to improve productivity.

"The program offered to enhance literacy skills has gone a long way toward improving labour–management relations. It has instilled a greater sense of trust between labour and management and has provided a very good example of how the two can work together."

Michael McGill, Town Engineer, Town of Truro, Nova Scotia

Increased Quality

Employees who are confident communicators are more likely to speak up and provide valuable feedback. ▶

A more engaged and participative workforce, arising from the employees' improved self-esteem and greater confidence in their ability to communicate, allows employers to benefit more from the knowledge employees possess. Employees who are confident communicators are more likely to speak up and provide valuable feedback affecting product quality and organizational productivity. By tapping into this knowledge, companies can improve the quality of their products and services.

They need less time to complete tasks and can produce more goods and services. ▶

An example of this is found at the Valley View Villa nursing home in Stellarton, Nova Scotia. Traditional care offered in nursing homes has focused on meeting the basic health-care needs of the residents. The literacy skills training offered at Valley View Villa instilled stronger self-esteem and self-confidence in the participating employees, which, in turn, led them to become more engaged with their work environment. This sense of involvement proved valuable when the organization set out to identify the broader lifestyle needs of its residents. All of the employees who worked with the residents were given the opportunity to provide input.

Reduced Time per Task

Enhanced literacy skills reduce the time needed to process written information, such as operating manuals, and to complete paperwork. Employees with stronger literacy skills assume ownership, become more active thinkers and need less time to complete tasks. Furthermore, literacy skills training makes employees better communicators who can work together more efficiently and effectively to get a job done.

"Greater confidence in processing written material and in making decisions shortened the time to get work done."

Fred Adair, Training Co-ordinator, Miramichi Trades and Labour Union, New Brunswick

---

Increased Output

Improved literacy skills increase the amount of goods and services that employees are able to produce. This is a direct result of their having greater confidence in their ability to act on materials they read and information they hear. As employees strengthen their literacy skills, they become more confident decision makers, spend less time depending on co-workers and have more time to do their job and to be creative. This was the experience at the Breton Bay long-term care facility in Sydney, Nova Scotia. Breton Bay employees who improved their communications skills by participating in the literacy program used these new skills to make some

contributions to the organization, including involvement in teams set up to improve service quality and efficiency.

Reduced Error Rate

Employees with stronger literacy skills have improved comprehension, pay greater attention to detail and have a better and more confident command of language. These employees are more likely to check details when not certain, commit fewer errors in paperwork and follow instructions better. The outcome can be significant cost savings for the employer.

Better Health and Safety Record

Employees with higher literacy skills are more likely to understand, accept and conform to health and safety directives. ▶

Because they follow instructions more closely and are easier to train, employees with higher literacy skills are more likely to understand, accept and conform to health and safety directives in the workplace. A highly skilled employee is better prepared to understand health and safety procedures and their implications, and therefore is more open to change. At the same time, these employees have a greater ability to process information, are more confident in their ability to communicate and are more likely to question new or existing procedures, leading to the development of better health and safety practices.

Increased Profitability

Corporate goals are more clearly understood by these employees, as are the implications for how they carry out their responsibilities. ▶

A more literate, informed and engaged workforce has a greater sense of the entire organization, is more likely to offer cost-saving suggestions and has an improved sense of how individual actions affect the bottom line. Corporate goals are more clearly understood by these employees, as are the implications for how they carry out their responsibilities. All this helps to ensure that the entire organization is moving in the same direction; this alignment can make an important contribution to increasing profitability.

At Breton Bay, enhanced literacy skills led to a better understanding and a more positive approach to the idea of the bottom line. According to Bev Justin, Director of Clinical Services/Education Quality Management, stronger literacy skills helped employees gain a greater understanding of the budgeting process; moreover, these employees took it upon themselves to share this knowledge with others.

"By improving the literacy skills and team-building skills of staff at our facility, our organization has become more focused, because the vision and priorities developed through consultation are understood at the front line. This development has proven to be very beneficial to our non-profit charitable organization, allowing us to survive these very tough times in health care."

Rhonda Marks, Administrative Assistant, Twin Oaks/Birches Continuing Care Centre, Musquodoboit Harbour, Nova Scotia

---

Increased Retention of Employees

The establishment of literacy skills training is viewed by employees as a sign that companies value education and are prepared to encourage a learning culture within the organization. Literacy training is often the first step in an ongoing learning process; it opens the door to more training opportunities. It also allows employees to achieve personal goals and keep pace with a changing workplace that increasingly demands skills enhancement.

An example of this is found at the Cavendish Farms processing plant in Prince Edward Island. The new

Stronger communication skills help employees identify and meet customer needs faster and more effectively.

food-processing facility, which is completely computerized, attracted employees who had enhanced their literacy skills through a workplace literacy program. It was the experience of Cavendish Farms that capable employees whose skills did not match the job requirements did not apply for the new positions.

"The literacy program has enabled employees to improve their position within our workplace and, on a couple of occasions, allowed them to move into positions that were unattainable with their former level of education."

Michael McGill, Town Engineer, Town of Truro, Nova Scotia

Firms that invest in the personal and professional development of their employees benefit from stronger workforce commitment.

In some cases, literacy training leads to recognized certification in skilled trades, followed by promotions, for employees with several years of on-the-job experience. In areas where there is a limited supply of labour, the ability to promote from within is very useful to employers. In addition to getting more value from the knowledge current employees possess, employers avoid the considerable cost associated with hiring and training new employees.

Increased Retention of Customers

Stronger communication skills help employees identify and meet customer needs faster and more effectively. The result is satisfied customers who are more likely to continue their business relationship with the organization. For example, Pitney Bowes of Canada Ltd. has found in repeated customer surveys that the quality of the contact between the client and the customer service representative is a major determinant of brand loyalty. Literacy training can help to ensure that representatives of the company are effective communicators. In addition, businesses benefit when they are perceived as progressive employers who invest in their communities.

Reduced Absenteeism

Firms that invest in the personal and professional development of their employees benefit from stronger workforce commitment. The provision of literacy training is viewed by employees as a signal that they and their contributions are valued by the organization. Employees gain satisfaction from working in an environment where they are respected and have an opportunity to develop. The opportunity to improve literacy skills contributes to such an understanding and helps reduce the level of absenteeism.

Absenteeism is further reduced as employees reach a higher comfort level in using written materials and communicating. Furthermore, because employees with stronger literacy skills have a broader perspective on how their actions affect the bottom line, they are less likely to be absent from work. Altogether, employers benefit from a more committed workforce and from the cost savings associated with not having to recruit and train individuals to fill positions on a temporary basis.

Organizational Flexibility

Employees with stronger literacy and communications skills move up the learning curve in new positions more quickly because their information-processing skills and ability to articulate ideas help them to adjust more easily to a new environment. As people become more willing to express their ideas, employers have an opportunity to identify the talents and potential of those who may be better employed elsewhere

The benefits to employers derive from unleashing the potential and creativity of employees.

in the organization. This was the case at Valley View Villa, where following the completion of the literacy program, a housekeeper who was found to work very well with seniors is now employed as a physiotherapy aide.

A Win–Win Proposition

All organizations face the same competitive challenges, regardless of the nature of their operation. Their success in facing the changes that lie ahead depends in large part on how they capitalize on the most important resource that they all share—their people.

The employees gain important benefits as well.

The underlying benefit to employers of enhancing literacy skills in the workplace is that it unleashes the potential and creativity of employees. The new ideas needed to move businesses forward will materialize when employees are given the skills necessary to communicate ideas effectively.

Benefits for Employees

Employees, as well as employers, gain significant benefits when they improve their literacy skills. Data from the Canadian portion of the International Adult Literacy Survey reveal that workers with higher literacy skills earn more income, are less likely to be unemployed, experience shorter periods of unemployment, are more likely to find full-time rather than part-time work, and are more likely to receive further training.

For example, employees with higher literacy skills generally earn more than those with lower literacy skills.

Higher Earnings

There is a strong association between literacy skills and employment earnings in Canada. While the effect is not uniform across all levels of literacy, employees with higher literacy skills generally earn more than those with lower literacy skills. Economic theory postulates that the higher employment income reflects the higher productivity of workers with enhanced literacy skills. Chart 2 shows the age–income profiles of typical male and female employees with low and high document literacy skills.[4] The shape of the profiles reflects the fact that, on average, workers earn less income at the beginning and toward the end of their careers. Peak earnings occur at age 44 for males with high document literacy skills and age 39 for males with low document literacy skills. For women, peak earnings occur at age 47 for those with high literacy skills and age 45 for those with low literacy skills. Income profiles for prose and quantitative literacy reveal similar shapes.

Over an employee's working lifetime, a male with high document literacy skills can expect to earn $1,743,000 in pre-tax income, while a male with low literacy skills can expect to earn $1,158,000.[5] Thus, the male with higher literacy skills makes an extra $585,000 over his lifetime.[6] For female employees, those with high document literacy skills can expect to earn $1,242,000 over their lifetime, compared with $559,000

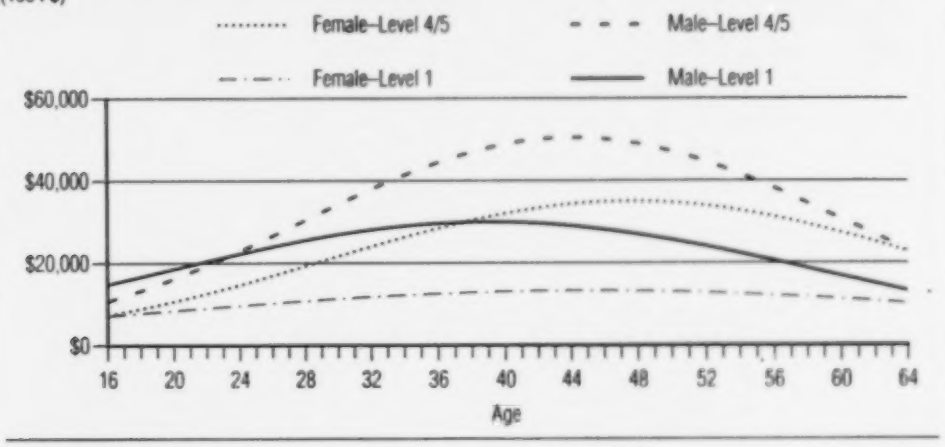
4 Throughout this section, the term "low" literacy refers to Level 1 literacy as defined by the IALS and "high" literacy refers to Level 4/5 literacy (see Exhibit 1). The discussion here compares only the lowest and highest literacy levels, thereby indicating the largest scope of differences among literacy levels.

5 Pre-tax income has been used throughout this study.

6 Many studies use the concept of present value, or discounting, to compare alternative future streams of income. Discounting the figures in this study does not change the conclusion that individuals with high literacy skills earn more, over time, than those with low literacy skills. For example, using a 6 per cent rate to discount the lifetime earnings to their value in 1994, the year of the IALS survey, results in earnings of $358,000 for males with low literacy skills and $453,000 for those with high literacy skills.

Chart 2

Lifetime Pre-Tax Employment Income Profile by Literacy Level and Age, Canada
(1994 $)



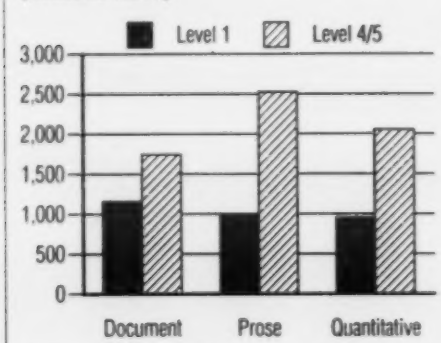
Sources: IALS; The Conference Board of Canada.

for those with low literacy skills. This represents a difference of $683,000. Similar results were obtained using the prose and quantitative literacy scales (see Charts 3 and 4).

As Chart 2 indicated, male and female employees with the same document literacy skills do not earn the same amount of income. Over their working lifetime, women with high document literacy skills earn 71 per cent of what similar men earn, and women with low document literacy skills earn just 48 per cent of what similar men earn. This is not surprising, given

Chart 3

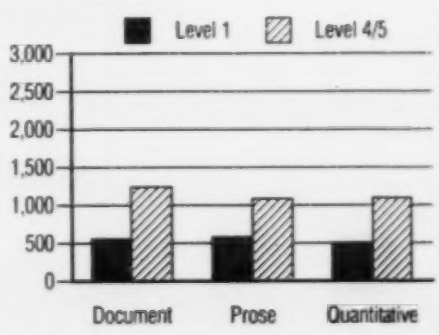
Estimated Lifetime Employment Earnings by Literacy Type and Level, Males
(thousands 1994 $)



Sources: IALS; The Conference Board of Canada.

Chart 4

Estimated Lifetime Employment Earnings by Literacy Type and Level, Females
(thousands 1994 $)



Sources: IALS; The Conference Board of Canada.

The earnings gap is greater for women than for men.

that numerous studies have charted the male–female earnings gap. Yet Charts 3 and 4 do reveal an interesting point—there is greater economic incentive for females to obtain higher literacy skills. Females with high document literacy skills earn 122 per cent more than females with low literacy skills, while males with high document literacy earn 51 per cent more than those with low literacy. Generally speaking, then, the earnings gap between those with high and low literacy levels is greater for Canadian women than for Canadian men.

Decreased Incidence of Unemployment

Males with high literacy skills had a lower incidence of unemployment than those with low literacy skills.

The strong relationship between literacy and earnings is clear. But other indicators emphasize the importance of improving literacy skills as well.

For each of the three literacy types, males with high literacy skills had a lower incidence of unemployment than those with low literacy skills. Table 2 shows that, of males with low document literacy skills, 20 per cent were unemployed, while only 4 per cent with high document literacy skills were unemployed. The comparable figures for prose literacy are 22 per cent and 3 per cent; and 23 per cent and 3 per cent for quantitative literacy.

The correlation between literacy skills and unemployment is not as strong for females, which suggests that improving literacy skills does not significantly decrease the incidence of unemployment for women. However, this conclusion would be misleading, as shown by the employment figures in Table 2. Only 34 per cent of females with low document literacy skills were employed, compared with 70 per cent of those with high document literacy skills. The seeming discrepancy between the unemployment and employment indicators can be explained by the fact that the proportion of women who are considered part of the labour force (i.e., employed or unemployed and looking for work) is much lower than the proportion of men. More than 80 per cent of men in the survey are considered to be in the labour force, while approximately 63 per cent of women are.

Table 2

Employment Indicators by Literacy Type and Level

	Unemployment rate (per cent)		Employment rate (per cent)		Proportion of unemployed workers who have been unemployed for longer than one year		Proportion working part time because they could not find full-time work	
	Male	Female	Male	Female	Male	Female	Male	Female
Document Literacy								
Level 1	20	7	50	34	55	37	64	19
Level 4/5	4	7	80	70	34	51	7	27
Prose Literacy								
Level 1	22	7	51	34	47	33	76	22
Level 4/5	3	3	82	69	19	13	26	22
Quantitative Literacy								
Level 1	23	7	54	32	47	34	40	22
Level 4/5	3	4	83	74	31	7	21	20

Sources: IALS, The Conference Board of Canada.

There is a large contingent of women (22 per cent) who described their current work situation as that of homemaker. This may mean that women who cannot find work, regardless of their literacy skill levels, drop out of the labour force and are not counted in the unemployment figures. This may account for the similar unemployment rates for women who have different literacy levels.

Table 2 illustrates that men with higher literacy skills are also more likely to be employed than those with lower literacy skills. For example, 51 per cent of men with Level 1 prose literacy are employed, while 82 per cent of those with Level 4/5 are employed. Similar figures prevail for document and quantitative literacy.

Higher literacy skills also have an effect on the duration of unemployment.

Higher literacy skills also have an effect on the duration of unemployment. In general, the lower the literacy level, the more likely it is that the person will be unemployed for longer than one year. For example, 47 per cent of unemployed males with low quantitative literacy skills had been out of work for longer than one year, compared with 31 per cent of those with high quantitative literacy skills. The one exception is females on the document literacy scale. The proportion of females out of work for longer than one year with high document literacy skills is greater than that of females with low document literacy skills.

More Full-Time Employment

Individuals with high literacy skills are more likely to find full-time work and to receive further training.

Individuals with high literacy skills who are looking for full-time work are more likely to find it than those with low literacy skills. Of men who work part time, 64 per cent of those with low document literacy skills said that they work part time because they could not find full-time employment, but only 7 per cent with high document skills gave that reason. The main reason (86 per cent in the case of document literacy) that men with high literacy skills worked part time was to attend school. In other words, part-time employment for those with high literacy skills tends to be voluntary, whereas more than half of those with low literacy skills who work part time do so involuntarily.

Table 2 shows that a similar proportion of women with high and low literacy skills work part time because they could not find full-time work. Women with high literacy skills are more likely to mention school and child-care responsibilities as reasons for working part time. For example, 19 per cent of women with high document literacy skills worked part time because they were going to school, and 15 per cent cited child-care responsibilities. Only 9 per cent of women with low document literacy skills cited schooling and 2 per cent gave child-care responsibilities as the reason.

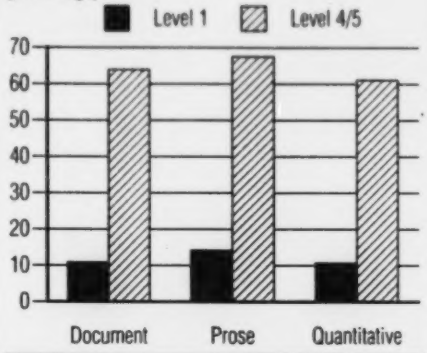
More Training

Employees with high literacy skills are more likely to receive further training and education. In the IALS, only 1 in 10 male employees with low document literacy skills had received training or education in the year prior to the survey, compared with about 6 out of 10 with high document literacy skills (see Chart 5). Similar figures were obtained for prose and quantitative literacy skills. Female employees are also more likely to receive training if they have higher literacy skills (see Chart 6). About 2 in 10 women with Level 1 document literacy had received some form of training or education in the previous year, compared with more than 6 in 10 with Level 4/5 document literacy skills.

The fact that employees with higher literacy skills get more training is significant, since other studies emphasize that employee training leads to greater

Chart 5

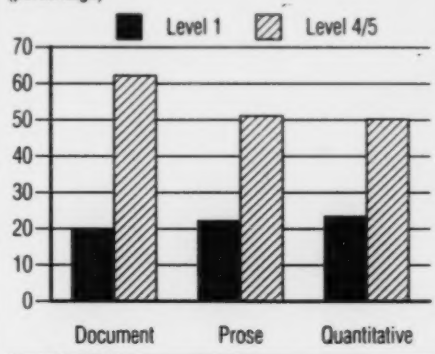
Proportion of Employees Receiving Training by Literacy Type and Level, Males
(percentage)



Sources: IALS; The Conference Board of Canada.

Chart 6

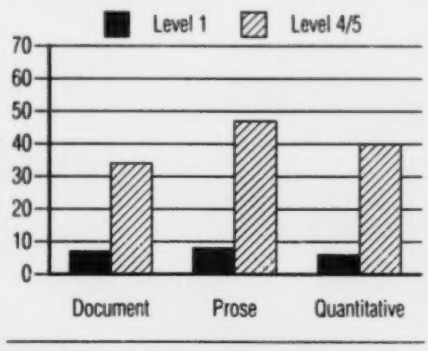
Proportion of Employees Receiving Training by Literacy Type and Level, Females
(percentage)



Sources: IALS; The Conference Board of Canada.

Chart 7

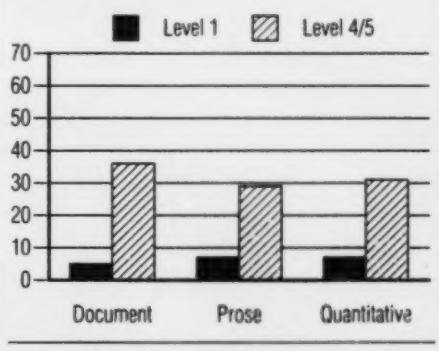
Proportion of Employees Receiving Employer-Sponsored Training by Literacy Type and Level, Males
(percentage)



Sources: IALS; The Conference Board of Canada.

Chart 8

Proportion of Employees Receiving Employer-Sponsored Training by Literacy Type and Level, Females
(percentage)



Sources: IALS; The Conference Board of Canada.

productivity and hence higher earnings, less incidence of unemployment and job instability, and increased opportunities for job mobility and advancement. Individuals entering the labour force with inadequate literacy skills find it more difficult to remedy these deficiencies.

This is particularly true when looking at employer-sponsored training (see Charts 7 and 8). Women and men with high literacy skills are, on average, five times more likely to receive employer-sponsored training than those with low literacy skills. For example, 7 per cent of

men with low document literacy skills receive employer-sponsored training, compared with 34 per cent of men with high document literacy skills.

How the Benefits Add Up

For individuals with higher literacy skills, the dollar value attached to the factors of lower unemployment, more full-time work and the higher probability of receiving training is significant. Weighting the average annual incomes (from all sources) associated with each of these factors by the appropriate sample size, the average annual incomes of "typical" high-literacy and low-literacy individuals can be compared. The average male with high document literacy skills had an annual income of $43,495 in 1994 (see Chart 9). The average income for a male with low document literacy skills was $24,029. A female with high document literacy skills had an income of $27,424; the income of a female with low document literacy skills was $13,964 (see Chart 10). The higher income enjoyed by those with higher literacy skills reflects not only increased employment earnings, but also the greater probability of being employed, of finding full-time work and of receiving training. These factors result in an average annual income for high-literacy individuals that is approximately double that of individuals with low literacy skills.

High-literacy individuals have an average annual income that is approximately double that of individuals with low literacy skills. ▶

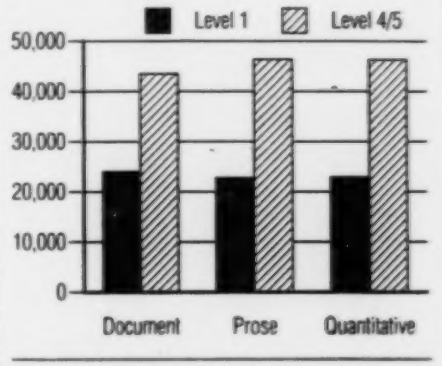
Call to Action

This study provides concrete evidence that literacy matters to both employers and employees. Yet, even though the evidence is powerful, the message has not reached many Canadian workplaces. Many employers have not yet recognized that a decision to invest in literacy will have a positive overall impact on their organization and their bottom line.

Employees' literacy skills do not survive if left unused. ▶

Chart 9

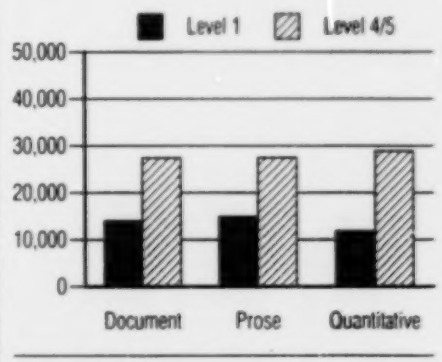
Average Annual Income by Literacy Type and Level, Males
(1994 $)



Sources: IALS; The Conference Board of Canada

Chart 10

Average Annual Income by Literacy Type and Level, Females
(1994 $)



Sources: IALS; The Conference Board of Canada

Many are also unaware that employees' skills do not survive if left unused. The axiom "use it or lose it" applies here: literacy skills developed through training have to be exercised regularly in literacy-rich jobs if employees are to maintain the gains they have made.

Not enough literacy skills training, development and application are going on in Canada's workplaces to meet our national needs.

Similarly, many employees are unaware that a decision to improve their literacy skills will also improve their chances for success in the workplace. The result is that not enough literacy skills training, development and application are going on in Canada's workplaces to meet our national needs.

What can Canadians do to improve the situation? First, we can take action to raise awareness of the importance and value of improving literacy in the workplace. Above all, we can demonstrate the linkages among literacy skills, workforce development and economic prosperity. Many individuals and organizations can play a role here.

Employers who already run literacy programs and know their value can help by spreading the message, especially to their fellow employers. A call to action from one employer to another would build support and encourage more businesses to get involved in literacy training. Employees can play an active role by spreading the word about the benefits of literacy training among their co-workers. If they have enjoyed real benefits from their participation in literacy training they will encourage more employees to get involved. Governments, too, can help, by disseminating research findings about the economic importance of workplace literacy to employers and employees across Canada. This will help raise awareness and build buy-in at the business level.

A culture of learning in the workplace is essential to remain competitive in world markets.

Second, employers, possibly supported by governments, can establish more literacy training programs in their workplaces and provide more places in those programs for employees who wish to take part. Employers can work with their employees—and, if applicable, with unions—to determine what type of training is most needed and to create programs to meet the need.

Third, we can enhance the literacy component of existing jobs and create more literacy-rich jobs. Literacy skills developed through training can be applied to produce more value-added products and services.

Fourth, we can develop public policies to strengthen literacy skills. Governments are already providing support and encouragement. For example, the federal government's National Literacy Secretariat funds research into effective practices and supports pilot projects and other initiatives to enhance skills. Provincial governments are also providing resources for literacy activities. In addition, governments can help to build broad support for workplace literacy by implementing labour market policies aimed at improving the ability of workers to acquire and enhance literacy skills.

These initiatives can be seen as part of a larger effort to encourage employers and employees to work together to create a culture of learning in the workplace, which in the long run is essential for Canadian businesses to remain competitive in world markets. Ultimately, investing in literacy skills development as an integral part of overall training and development in the workplace will benefit us all. Employees who take part in training programs will experience a significant personal return. Businesses that engage in literacy skills development will become more competitive and increase their profitability. Governments that support these initiatives will be helping to build a more prosperous nation.

Appendix: Survey Participants

Newfoundland
Newfoundland and Labrador Hydro

Prince Edward Island
Cavendish Farms

Nova Scotia
Crossley Carpet Mills Limited
Hillcrest Manors Ltd.
Northside Harbourview Hospital Corporation
St. Martha's Regional Hospital
St. Vincent's Guest House
Scotia Nursing Homes Limited
Shannex Health Care Management/ Breton Bay Nursing Home
Town of Truro
Twin Oaks/Birches Continuing Care Centre
Valley View Villa
Western Regional Health Centre

New Brunswick
Miramichi Trades and Labour Union
Noranda Mining and Exploration Inc., New Brunswick Divisions
Noranda Mining and Exploration Inc., Brunswick Smelting Division
T.S. Simms & Co. Limited

Quebec
Abitibi Consolidated
Alcatel Cable
Coopérative forestière de Petit Paris
Culinar Canada (Division de Culinar Inc.)
Kraft Canada Inc.
Produits forestiers Alliance inc.
Usine de Congélation de St-Bruno Inc.

Ontario
Gay Lea Foods Co-Operative Limited
James River-Marathon, Ltd.
Pitney Bowes of Canada Ltd.
Volex Capulum Inc.

Manitoba
Bristol Aerospace Limited
Manitoba Pool Elevators
Molson Breweries

Saskatchewan
City of Saskatoon
Husky Oil Ltd.
Saskatchewan Environment and Resource Management, Government of Saskatchewan

Alberta
AltaSteel Ltd.
The Calgary Herald
Imperial Oil Resources Limited
Syncrude Canada Ltd.

British Columbia
Hastings Institute Inc./City of Vancouver

Note: One participating organization preferred not to be listed.

Research Publications

The Conference Board of Canada
255 Smyth Road
Ottawa, Ontario K1H 8M7
Canada
Telephone: (613) 526-3280
Fax: (613) 526-4857
Internet
http://www.conferenceboard.ca

The Conference Board, Inc.
845 Third Avenue
New York, N.Y. 10022 U.S.A.
Telephone: (212) 759-0900
Fax: (212) 980-7014
http://www.conference-board.org

The Conference Board Europe
Chaussee de La Hulpe 130, bte 11
B-1000 Brussels, Belgium
Telephone: (32) 2 675 54 05
Fax: (32) 2 675 03 95

The Economic Benefits of Improving Literacy Skills in the Workplace, 206-97 Report.**†

The Evolution of Regulations and the Challenges Ahead, 205-97 Report.**

The Impact of Variable Compensation on Base Pay, 204-97 Members' Briefing.

Strengthening Canada–European Union Business Relations, 203-97 Report.**

Corporate E-mail and Internet Policies, 202-97 Members' Briefing.

Corporate Social Responsibility and Education: A Sustainable Wealth Creation Strategy, 201-97 Members' Briefing.

Practices in R&D Outsourcing: A Business View, 200-97 Members' Briefing.

Public Sector Planning and Alignment: Doing the Right Things/Doing Things Right, 199-97 Members' Briefing.

Business Community Gains Voice in APEC, 198-97 Members' Briefing.

Jobs in the Knowledge-Based Economy: Information Technology and the Impact on Employment, 197-97 Report.**

Corporate Restructuring: Lessons Learned, 196-97 Members' Briefing.

Impact of Economically Regulated Industries in Canada, 195-97 Report.**†

Operating Principles for Business–Education Partnerships, 194-97 Report.**†

Human Resources Outlook: Planning for the New Millennium, 193-97 Members' Briefing.

Contingent Work: Trends, Issues and Challenges for Employers, 192-97 Report.**

Building Global Business: Taking a Second Look at Brazil, 191-97 Members' Briefing.

R&D Tax Incentives in OECD Countries: How Canada Compares, 190-97 Members' Briefing.†

Voluntary Environmental Initiatives in Canada, 189-97 Members' Briefing.

Electronic Delivery Systems in the Retail Financial Services Sector, 188-97 Members' Briefing.

Measuring Innovation: Is It Doable? 187-97 Members' Briefing.

Building Global Business in the Pacific Rim, 186-97 Report.*

Industrial Relations Outlook 1997, 185-96 Report.**

The Corporate Response to Rising Health Care Costs, 184-96 Report.**†

Corporate Community Investment in Canada 1995–96, 183-96 Members' Briefing.

Performance Appraisal Processes for In-House Support Functions, 182-96 Members' Briefing.

Ethnocultural Diversity: A Source of Competitive Advantage, 181-96 Members' Briefing.

Canadian Financial Services in the 1990s, 180-96 Members' Briefing.

Trade, Environmental Standards and Competitiveness: The Canadian Case, 179-96 Report.**

Building an Innovative Canada: A Business Perspective, 178-96 Report.**

Focus on Competencies: Training and Development Practices, Expenditures and Trends, 177-96 Report.**

Jobs in the Knowledge-Based Economy, 176-96 Members' Briefing.

Supporting Governments: Transfers from Financial Institutions to Governments, 1996 Edition, 175-96 Report.**

Promoting Corporate Objectives Through Community Economic Development, 174-96 Report.**

Editing Jennifer Jarvis
Layout Holly W. Michael

*Both research report and detailed findings are available.
**A Members' Briefing is also available.
†Aussi offert en français.

Recycled paper

For more information about these publications, please contact the Publications Information Centre at (613) 526-3280, Fax (613) 526-5248, or E-mail: pubsales@conferenceboard.ca.

BEST COPY AVAILABLE

The Conference Board of Canada
255 Smyth Road, Ottawa, ON K1H 8M7 Canada
Telephone: (613) 526-3280
Fax: (613) 526-4857
Internet: http://www.conferenceboard.ca

Information for Sound Decisions Since 1954

BEST COPY AVAILABLE